0069727

SAF-RC-001
Industrial Hygiene Sampling
FINAL DATA

NO DISTRIBUTION REQUIRED

COMMENTS:

SDG 06I-0906-01 SAF-RC-001

Rad only X Chem only Rad & Chem

X Complete Partial

300 Area 303E & 303F Bldg

Cover Page

Report Identification Number: 06I-0906-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001 / R303F0 J451
Payroll#: 8C104

Sample Information

Sample Date	Customer Sample Number	Laboratory Sample Number	Method	Analytical Batch Identification	Sample Matrix
27 Feb 2006	J115M3	06I07351	NMAM 7300M	G0620013	G WIPE
27 Feb 2006	J10TM3	06I07352	NMAM 7300M	G0620013	G WIPE
27 Feb 2006	J115M6	06I07353	NMAM 7300M	G0620013	G WIPE
27 Feb 2006	J115M4	06I07354	NMAM 7300M	G0620013	G WIPE
27 Feb 2006	J115M5	06I07355	NMAM 7300M	G0620013	G WIPE

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Name: Joanna C. Sanchez
Title: Chemist
Date: March 06, 2006

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Case Narrative Page

Report Identification Number:	06I-0906-01
Subcontract Number:	0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist:	Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number:	DCHM
SAF#:	RC-001 / R303F0 J451
Payroll#:	8C104

General Set Information: There are 5 samples in set 06I-0906-01, 4 samples in set 06I-0907-01 and 7 samples in set 06I-0908-01 that were analyzed for cadmium, lead and beryllium on Ghost Wipe. No problems were encountered with the receipt of these samples and no contact with the CTR was required.

Method Summary: Samples were transferred to 50 ml centrifuge tubes and digested in the presence of 5 mL of nitric acid and 5 mL of ASTM Type II water. Samples were digested in a hot block set at 110°C for 60 minutes. Samples were then diluted to a 25 mL volume with ASTM Type II Water. Samples were shaken and delivered for ICP analysis.

Sample Preparation: All samples were prepared in accordance with DCL SOP "IH-AN-021" and NIOSH method NMAM 7300 modified for hot block digestion.

Holding Times: The holding times were met for both sample preparation and analysis.

Instrument Calibration: Instrument calibration was performed in accordance with NIOSH method NMAM 7300.

Initial and Continuing Calibration Verification Analysis: Beryllium, cadmium and lead recoveries in all Initial Calibration Verification (ICV) and Continuing Calibration Verification (CCV) samples are within the quality control limits of ± 10%.

Initial and Continuing Calibration Blank Analysis: No beryllium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.01 ug/sample. No cadmium results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 0.07 ug/sample. No lead results were found in the Initial Calibration Blank (ICB) or Continuing Calibration Blanks (CCB) at levels above the Contract Required Detection Limits (CRDL) of 2. ug/sample.

Method Blank Analysis: No beryllium, cadmium or lead was found in any of the media blank samples above the Contract Required Detection Limit (CRDL).

Dilution(s): None.

Case Narrative Page

Laboratory Control Sample and Duplicate Analysis: One Laboratory Control Sample (LCS) and one Laboratory Control Sample Duplicate (LCSD) were prepared and analyzed with the sample batch. The LCS results were within the control limits of ± 20%. The Relative Percent Difference (RPD) between the LCS and the LCSD were within the control limit of 20%.

Replicate Analysis: Two samples in this batch were replicated. The RPD between the sample and the replicate was within the control limit of 20%. If the result of the sample or replicate is below the CRDL, replicate analysis is negligible.

Flagging Codes: None

Nonconformance/Corrective Action Report (NC/CAR): N/A

Sample Calculation: The final results are calculated by the following equation:

Final result for aqueous samples (µg/sample) = (A) x (B) x (C)

Where:

A = Analyte concentration from instrument determination (µg/L)

B = Concentration factor from sample preparation

$$= \frac{\text{Final Volume of Digestate (L)}}{\text{Sample}}$$

C = Dilution performed at time of analysis

Example Calculation: (1 µg/L) x (0.025 L/sample) x (1) = 0.025 µg/sample

Miscellaneous Comments: None

Report Page

Report Identification Number: 06I-0906-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF#: RC-001 / R303F0 J451
Payroll#: 8C104

Customer Sample Number	Laboratory Sample Number	Date Analyzed	Beryllium µg/sample		Cadmium µg/sample		Lead µg/sample	
J115M3	06I07351	02 Mar 2006	0.018		5.2		1200	
J10TM3	06I07352	02 Mar 2006	<0.01	U	0.94		22.	
J115M6	06I07353	02 Mar 2006	<0.01	U	<0.07	U	<2.	U
J115M4	06I07354	02 Mar 2006	<0.01	U	<0.07	U	<2.	U
J115M5	06I07355	02 Mar 2006	<0.01	U	<0.07	U	<2.	U
Limit of Detection (LOD)			0.01		0.07		2.	
Required Detection Limit (RDL)								

U - Parameter not detected above LOD.
J - Parameter between LOD and RDL.

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QC Summary Page

Report Identification Number: 06I-0906-01
Subcontract Number: 0000X-BO-G0058-B-Mod#4
Name of Industrial Hygienist: Denise A. Pitts / Henry W. Ruby
Laboratory Identification Number: DCHM
SAF: RC-001 / R303F0 J451
Payroll#: 8C104

Batch ID: G0620013

QC Sample ID	QC Type	Analyte	Units	Result	Parent Result	Target	Percent Rec.	Relative Percent Diff.
BL-242015-1	MB	Beryllium	µg/sample	ND	NA	NA	NA	NA
BL-242015-1	MB	Cadmium	µg/sample	ND	NA	NA	NA	NA
BL-242015-1	MB	Lead	µg/sample	ND	NA	NA	NA	NA
QC-242015-1	LCS	Beryllium	µg/sample	11.1	NA	10.0	111.	NA
QC-242015-1	LCS	Cadmium	µg/sample	30.4	NA	30.0	101.	NA
QC-242015-1	LCS	Lead	µg/sample	98.8	NA	100.	98.8	NA
QD-242015-1	LCSD	Beryllium	µg/sample	10.9	11.1	10.0	109.	1.78
QD-242015-1	LCSD	Cadmium	µg/sample	29.9	30.4	30.0	99.8	1.38
QD-242015-1	LCSD	Lead	µg/sample	97.8	98.8	100.	97.8	1.07

MB - Method Blank
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MSD - Matrix Spike Duplicate
LD - Laboratory Duplicate

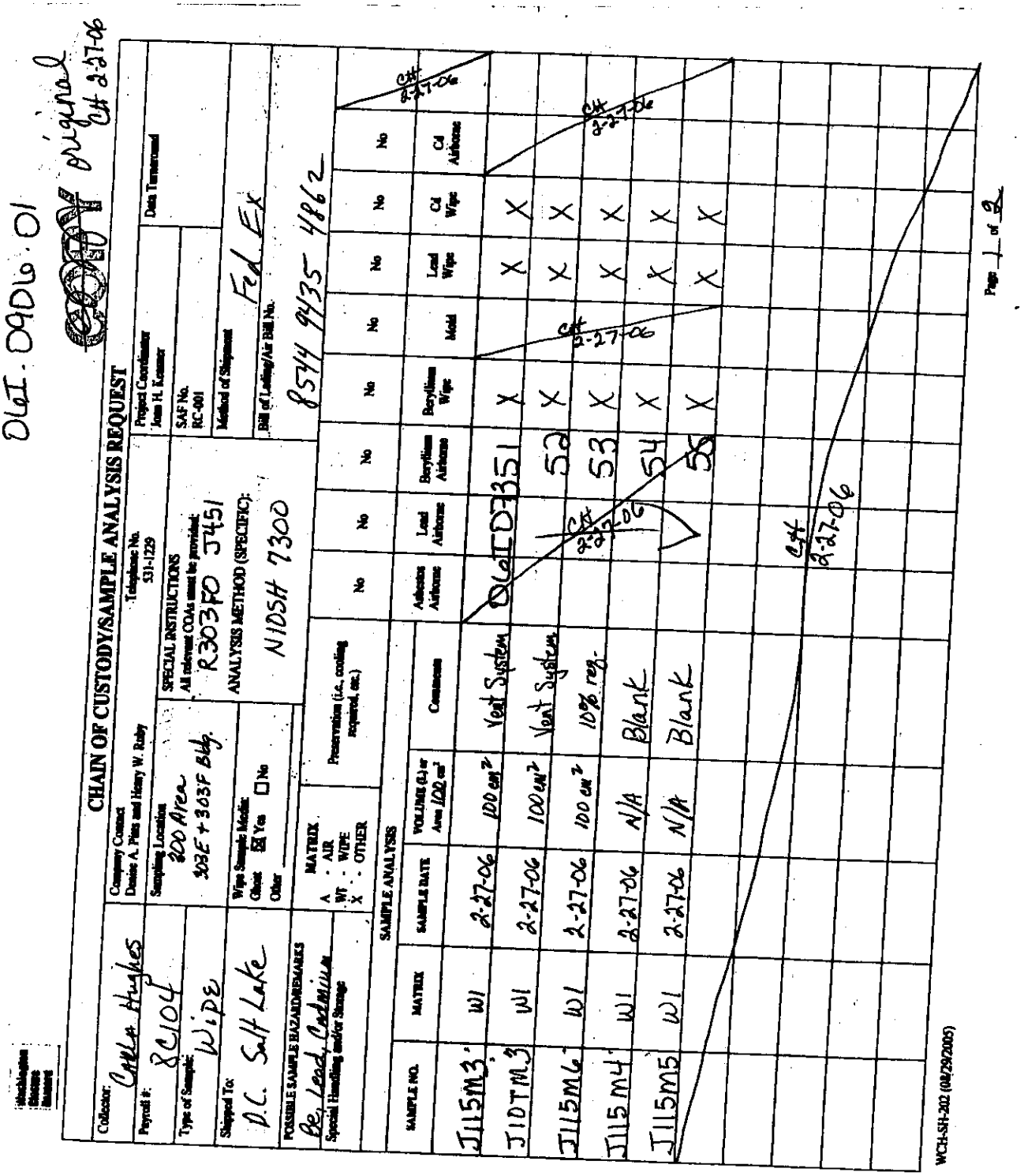
NA - Not Applicable
ND - Parameter not detected above LOD

LCS, LCSD Percent Rec. = (Result / Target) * 100.0
MS, MSD Percent Rec. = ((Result – Parent) / Target) * 100.0

LCS, LCSD Relative Percent Diff. = ((|LCS – LCSD|) / ((LCS + LCSD)/2.0)) * 100.
MS, MSD Relative Percent Diff. = ((|MS – MSD|) / ((MS+ MSD)/2.0)) * 100.
LD Relative Percent Diff. = ((|Parent – LD|) / ((Parent + LD)/2.0)) * 100

DATA CHEM LABORATORIES

COC Page



CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: Carla Hughes
Company Contact: Denise A. Pitts and Henry W. Ruby
Telephone No.: 531-1229
Project Coordinator: John H. Kanner
Data Turnaround
Payroll #: 8C104
Sampling Location: 200 Area 303E + 303F Bldg.
SPECIAL INSTRUCTIONS: All relevant COAs must be provided. R303F0 J451
SAF No.: RC-001
Type of Sample: Wipe
Wipe Sample Media: Ghost ☒ Yes ☐ No Other
ANALYSIS METHOD (SPECIFIC): NIOSH 7300
Method of Shipment: Fed Ex
Shipped To: D.C. Salt Lake
Bill of Lading/Air Bill No.: 8574 9435 4862
POSSIBLE SAMPLE HAZARDS/REMARKS: Be, Lead, Cadmium
Special Handling and/or Storage
MATRIX: A : AIR, WI : WIPE, X : OTHER
Preservation (i.e., cooling required, etc.)

SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area 100 cm²	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Lead Wipe	Cd Wipe	Cd Airborne
J115M3	WI	2-27-06	100 cm²	Vent System	QLaTD351		52	X		X	X	
J1DTM3	WI	2-27-06	100 cm²	Vent System			53	X		X	X	
J115M6	WI	2-27-06	100 cm²	10% rep.			54	X		X	X	
J115M4	WI	2-27-06	N/A	Blank			55	X		X	X	
J115M5	WI	2-27-06	N/A	Blank								

WCH-SH-202 (08/29/2005)

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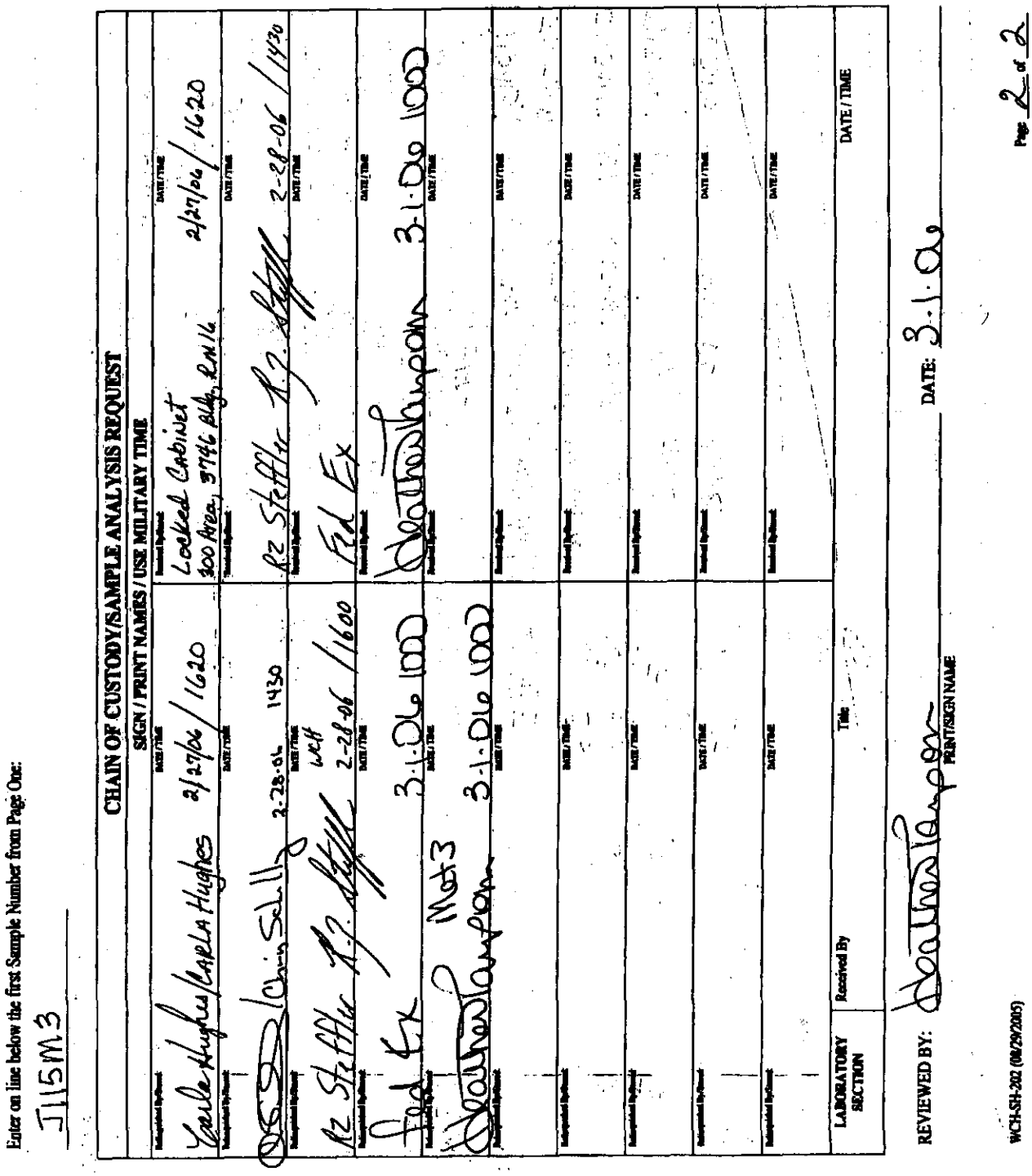
COC Page



Enter on line below the first Sample Number from Page One:

1115M3

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

Relinquished By/Date	Received By/Date	Relinquished By/Date	Received By/Date
Carla Hughes/Carla Hughes 2/27/06 / 1620	Locked Cabinet 300 Area, 3746 Bldg, Rm 14	2/27/06 / 1620	
[illegible] 2-28-06 1430	RZ Staffing R.Z. Staffing	2-28-06 / 1430	
RZ Staffing R.Z. Staffing 2-28-06 / 1600	Fed Ex		
Fed Ex 3-1-06 1000	Deathan Thompson	3-1-06 1000	
Deathan Thompson 3-1-06 1000			

LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY: _____ DATE: 3-1-06

PRINT/SIGN NAME

WCH-SH-202 (08/29/2005)

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Washington Closure Hanford

~~COPY~~ original CH 2-27-06

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

Collector: Carla Hughes	Company Contact: Denise A. Pitts and Henry W. Ruby	Telephone No.: 531-1229	Project Coordinator: Joan H. Kessner	Data Turnaround
Payroll #: 8C104	Sampling Location: 300 Area 303E + 303F Bldg.	SPECIAL INSTRUCTIONS All relevant COAs must be provided: R303F0 J451	SAF No.: RC-001	
Type of Sample: WIPE		ANALYSIS METHOD (SPECIFIC): NIOSH 7300	Method of Shipment: Fed Ex	
Shipped To: D.C. Salt Lake	Wipe Sample Media: Ghost ☒ Yes ☐ No; Other		Bill of Lading/Air Bill No.: 8544 9435 4862	
POSSIBLE SAMPLE HAZARD/REMARKS: Be, Lead, Cadmium; Special Handling and/or Storage	MATRIX: A - AIR; WI - WIPE; X - OTHER	Preservation (i.e., cooling required, etc.)		

SAMPLE NO.	MATRIX	SAMPLE DATE	VOLUME (L) or Area 100 cm²	Comments	Asbestos Airborne	Lead Airborne	Beryllium Airborne	Beryllium Wipe	Mold	Lead Wipe	Cd Wipe	Cd Airborne	
					No	No	No	No	No	No	No	No	CH 2-27-06
J115M3	WI	2-27-06	100 cm²	Vent System				X		X	X		
J10TM3	WI	2-27-06	100 cm²	Vent System				X		X	X		
J115M6	WI	2-27-06	100 cm²	10% reg.		CH 2-27-06		X	CH 2-27-06	X	X		CH 2-27-06
J115M4	WI	2-27-06	N/A	Blank				X		X	X		
J115M5	WI	2-27-06	N/A	Blank				X		X	X		
						CH 2-27-06							

COPY

FIELD SAMPLE COPY

Enter on line below the first Sample Number from Page One:

J115M3

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

SIGN / PRINT NAMES / USE MILITARY TIME

Relinquished By/Stored	DATE / TIME	Received By/Stored	DATE / TIME
Carla Hughes/CARLA Hughes	2/27/06 / 1620	Locked Cabinet 300 Area, 3746 Bldg, Rm 16	2/27/06 / 1620
/Chris Schilly	2-28-06 1430	RZ Steffler R.J. Steffler	2-28-06 / 1430
RZ Steffler R.J. Steffler	WCH 2-28-06 / 1600	Fed Ex	

LABORATORY SECTION	Received By	Title	DATE / TIME

REVIEWED BY: _____ DATE: _____

PRINT/SIGN NAME